California GARDEN

10c

November-
December
1934

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By C. J. Jerabek

Water Gardens
By
Bertha M. Thomas

Begonia Research
By Eva Kenworthy Gray

Season's Greetings

The Magazine . . .

"California Garden"

A Practical Local Guide published monthly
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Subscription $1.00 per year

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THE NOVEMBER MEETING

The November meeting of the San Diego Floral Association was a great treat to the large number of members and friends present. Mrs. William Larson of Encinitas spoke in a most interesting way on the culture of lily bulbs demonstrating her remarks with some bulbs which were in the process of developing. She showed how to start new bulbs from the scales of the old ones. How to look for the baby bulbs which develop along the stems of the Regal lily just under the top of the soil. Lilies grow well in San Diego and she recommends more planting of them. Miss Kate Sessions followed with a talk on the plants which would grow fast and be most colorful in time for the Exposition. She recommended lantanas, geraniums, berried shrubs, flowering acacias and others. It is always interesting to listen to speakers who love their plants as do the two women speakers of the meeting and they left their listeners convinced that the way to grow flowers is to love them and tend them as children.

POINSETTIA DISPLAY

Mr. Pete W. Ross has extended readers of the "California Garden' a cordial invitation to visit his interesting poinsettia display in his garden at 3968 Park Blvd., San Diego. Mr. Ross states he has many varieties including white, pink and double types.

NOTICE

On file and for sale, complete copies of all "California Garden" magazines.

THE THANKSGIVING ROSE - SHOW

Roses for Thanksgiving seems impossible, and when the San Diego Rose Society announces each year that they will display roses in a large show one cannot help but be sceptical and then when we walk into the artistic floral association building and see the magnificent displays of perfect roses grown out of doors we can hardly believe our eyes. Tables of specimens of perfect President Hoovers, Caledonias, Claudius Pernets, Golden Emblems, Dame Edith Helens, Autumns, and dozens of gorgeous reds were flanked by exquisite bowls and basket arrangements. Artistically arranged dining table decorations were displayed and also interesting shadow box pictures. Everyone gets a thrill out of the lovely rose Forrest Hieatt has created and called San Diego because the sunset shades of yellow in its petals reminds him of the sunsets over Point Loma. The show was conducted by J. J. Flint, general chairman, assisted by Forrest Hieatt, president of the society, Mrs. Elsie Case, Miss Etta Schwieder, Mrs. Bart Dockstader, Mrs. James Byers, Mrs. H. A. Thompson. The tea tables was presided over by Mrs. J. Weidel and her committee Mesdames, J. J. Flint, George Williams, and W. A. Thomas.

Note the date which appears after the mailing address on the cover of your "California Garden" and when your subscription expires, please renew promptly.

OUR FRIENDS, THE BIRDS

In Mrs. Fuller's timely article on birds she asks, "Do you want a birdless garden?" The answer is, emphatically no, for without the birds there would soon be no gardens.

We are told in the Bible that God watches over every sparrow that falls. Considering the millions upon millions of birds that have been wantonly killed, what is the human race laying up for itself in the final reckoning?

Investigation in regard to food habits of the Flicker reveal that these birds feed mostly on ants, caterpillars, beetles, cutworms, wireworms and some acorns and almonds in late fall. Surely they are entitled to a few things from the garden. Mealybugs and aphis do much damage in orchards. Ants protect these bugs, carrying them into the ground where they tend them. Later placing them on vegetation where they do so much damage. As many as 3000 ants have been found in the stomach of a Flicker. I quote this figure from a leaflet issued by the State Audubon Society.

Other birds have incalculable value as destroyers of weed seeds as well as insects. When we read of several million hunting licenses annually issued in this country, chiefly to hunters of water fowl, quail and grouse, we readily can see what a demand is made, in the name of sport, on bird life. It is most unlikely that a need for food is urging these hunters.

With the number of inlets along the coast of San Diego county, surely one, at least, could be set aside for a bird sanctuary, thus giving protection to our friends, the birds.

FLORENCE A. PIERCE,
Carlsbad, California.

National Council of State Garden Clubs

. . . Club Federations Hold Annual Meeting in Los Angeles

The Sixth Annual Meeting of the National Council of State Garden Club Federations will take place in Los Angeles, April 10th to 14th, 1935, with headquarters at the Ambassador Hotel. California will act as the Hostess State, for the first time to the National Council.

There will be a post-meeting motor trip south of Los Angeles, including Point Loma, Rancho Santa Fe and Rancho Santa Ana; and another up thru the State, going north of Los Angeles, stopping in Santa Barbara, Santa Maria, Monterey, Santa Cruz and San Francisco; with visits to Marin and Alameda counties.

The National Council was organized at Washington, D. C., on May 1st, 1929, with Connecticut, Georgia, Iowa, Illinois, Maryland, Massachusetts, National Capital, New Jersey, New York, Ohio and Oregon as Charter Members. There are now 40 State Garden Club Federations, 29 of which are members of the National Council, with an individual membership of 85,000.

The object of the National Council is to bring into relation of mutual helpfulness the State Federations of Garden Clubs and to make combined action possible when deemed expedient. One Garden Club alone is limited in its possibilities. A State Federation is a power in the State, and a National Council is an incalculable power for beauty throughout the United States.

The National Council acts as a clearing-house for information for State members. It was organized that it might become a powerful factor in national questions that affect horticulture, conservation, and the beauty of America; and, although it originated but five short years ago, yet, through the universal recognition of its potentialities and all its capacity for usefulness, it has already grown to include some eighty-five thousand people in its membership.

In March, 1933, in order to facilitate the work of the National Council of State Garden Club Federations, the States of the Union were divided into seven Regions, as follows: North Atlantic, Central Atlantic, South Atlantic, Central, South Central, Rocky Mountain, and Pacific Coast, with a regional vice president supervising each region. The Pacific Coast region includes the States of California, Washington, Oregon, Idaho, Nevada, and Arizona. Four of these States are now Federated as to their Garden Clubs, while, as yet, California is the only member of the National Council.

The National Council also publishes quarterly a Bulletin which gives the official news of the organization and much general information of garden interest. The individual is benefitted by the concerted action of all the Garden Clubs, made possible by the existence of a national organization, on such things as Billboard legislation, Conservation, Junior Garden Clubs. Other National Committees are those of Garden Centers, Visiting Gardens —both Foreign and American, Horticulture, Lectures and Lantern Slides, Legislation, and Program and Speakers' Bureau.

The California Garden Club Federation was organized by Mrs. Leonard B. Slosson of Los Angeles, in December, 1931, at Santa Maria Inn, Santa Maria, with a founder membership of 23 clubs. Since that time its membership has grown to include 81 Garden Clubs with an equal division in the northern and southern part of the State. Its program is a diversified one and includes Roadside Beautification, Conservation, Birds, Legislation, Organization and Membership, Flower Shows, Pilgrimage, Lectures and Lantern Slides, Program and Speakers' Bureau, Junior Garden Clubs, Garden Centers, Flower Show Judging, Publication and Publicity, Arrangements and Entertainment.

The Federation publishes a monthly horticultural magazine called "Golden Gardens", filling a much-desired need for cultural directions for California gardeners. This magazine is in the third issue of its third volume and has been self-sustaining.

Three separate annual lists of plants suitable for California gardens have been published in separate leaflets. A traveling exhibit, consisting of 28 enlarged photographs and captions of roadside conditions as to unsightly advertising, has been made available for the use of member clubs and other groups, as well as a leaflet setting forth the public rights concerning Outdoor Advertising. Two courses on Garden and Flower Show Judging have been held in San Francisco and Los Angeles, of which the separate sets of syllabi of lectures may be used by the members.

The Federation has sponsored the idea of a State Landscape Engineer, a technically trained person who will have charge of the work done toward beautifying our highways and taking care of our public beauty spots. It is backing-up all legislation as pertains to the protection of our native plants and wild flowers and the preservation of our birds. It supports the activities, along this line, of the California State Planning Board.

There is a Program and Speakers' Bureau in four of the eight districts into which the State is divided, to which member clubs have access. It maintains a Lending Library of excellent garden books and magazines and reference data.

MY GARDEN

I have not a beautiful garden,
Laid out with consummate art,
But I have a plot of good brown earth
And flowers that speak to my heart.

I am only a novice at planting,
But the pageantry of the days,
Bring me color, and fragrance, and beauty,
And the birds sing a pean of praise.

I haven't the skill or the knowledge
That comes from years near the sod,
But I planted the bulb of a lily
And it whispered: "There is a God."

ELIZABETH A. LEWIS.
Plainfield, N. J.

For Pleasure or Profit

By C. I. JERABEK

. . . *Rare and Exotic Fruits Growing in San Diego County*

Whether it is a hobby or a business, results are what count.

Some nineteen years ago C. O. Nichols came to Bostonia, and later purchased the land which now comprises Rancho Alto. After building a modern home, planting over twenty acres to oranges and landscaping the place with a few ornamental trees, shrubs and flowering plants he began to use his spare time in that fascinating hobby of raising tropical and subtropical fruits.

The following are a few of the interesting species: lemon, kumquat, Patagonia and Suriman cherries, many kinds of avocados and a large number of carob trees.

Four varieties of Jujube (Zizyphus) Li, Lang, and two unknown kinds. These are not considered tropical trees as they are deciduous part of the year. They are a fruit little known in this county ten years ago. The fruit of the larger kinds are subglobose to oblong in form, from 1 to 2 inches in length, according to the variety, having a smooth, thin, dark brown skin. The flesh is sweet and crisp, excellent to eat when fresh or dried. But to really enjoy them they should be preserved using equal parts of sugar and honey. Mr. Nichols glaced some of the Lang and they were pronounced excellent by Swingle, (the Explorer and plant collector) who said "They were as good as any he had ever eaten in China."

Another notable addition of proven value is the Queenland nut (Macedenia tenifolia.) Not only is this an excellent tree for its crop of nuts but it is ornamental. The nuts which hang like clusters of grapes are about one and one-quarter inch diameter, round and very hard shelled, with a tender white kernel of a delicious flavor.

One of the most gratifying trees is the annona cherimolia (Custard Apple) a fruit unsurpassed in flavor, which is used essentially as a dessert fruit. The trees are generally small, covered the year round, with dark green, velvety leaves. The flowers are about an inch long with a pleasing odor, the heartshaped fruit is green in color with many protuberances, but the inside is white and custard-like in consistency. Here two varieties, the "Booth" and the "Whaley" have proved the most desirable.

Six kinds of Sapote found their way to Rancho Alto, the San Diego, Anaheim, Chapman, Golden Nugget and two unnamed varieties, one is said to be hard-shelled. Without a doubt the San Diego is the favorite and the best known, the fruit of this tree being deliciously sweet. Although the Anaheim is a more prolific bearer it has a slight acid flavor to which some people object. The Chapman is of a greater size but of more recent introduction.

Several varieties of Carica papaya nave been tried, these were brought up to good producing stage but owing to the severe winter a year ago all were frozen. Having such good results in the past, another variety (called Solo) from Hawaii has been planted. The Island papayas are said to be much superior to those from Chile.

Among the other trees are three low growing shrubs of Strychnos spinosa, their slender branchlets armed with small spines. At this time the shrubs are laden with fruit which is the size of an orange. The outer shell is leathery, while the inner contents is mostly seeds and fibre.

Each year the list of satisfactory trees increases, Mr. Nichols has now raised a row of Litchi chinensis. Two of these fruited last year, they may have been the first one's in this state. The trees are medium sized covered with dense, dark-green, pinnate leaves. The fruit hangs in clusters, it has a thin, rough skin, of a brilliant red color when ripe and the translucent white flesh is firm and jelly-like in consistency and is highly prized for its delicious and refreshing flavor. I was told that the fruit is far more luscious if left on the tree until they turn brown, then these fairly melt in one's mouth. The fresh fruits probably have never before been in San Diego county, but the dried fruit called, "Leechee Nuts" can be bought in any Chinese-store while the preserved fruit may be purchased at leading grocers.

Twenty seeds of Chrysophyllum cainito (sometimes called Caimito) were sown, but out of this number only one tree survived, this is now about five feet in height. Not only does the fruit rank with the sapote but it merits cultivation for ornamental purposes.

Many varieties of Manigifera India (mangos) are producing here. These trees are medium sized, dome shaped, the matured leaves are lanceolate, deep green of a leathery texture, varying in length from 6 to 14 inches or even more. The young foliage is usually reddish, sometimes one side of the tree will be putting forth new growth while the other side is dormant. These trees have all borne profusely, as the dryness of the climate is apparently what the fruit needs to mature. On this ranch the mangoes bearing at the present time are the "Sandersha, an extra large fruiting type; the "Mulgoba," having a good sugar content, considered one of the best; "Langra Benarsi," with no more fibre than a piece of cheese; other good varieties are "Itamaraca," the "Haden," from Florida, "Canstell," an India tree with very sweet fruit, and the Pico, Singapur, Pateri, Cambodiana and various seedlings.

One of the most recent introductions is Sapota achras (Sapodilla), an evergreen tree with a dense rounded crown and stiff glossy leaves thickly clustered at the ends of the young branchlets. The flesh of the ripe fruit is yellow-brown, translucent, sweet and very delicious. Not only is it luscious to the taste, but the aroma reminds one of Jasmine, orange-blossoms. But these are only two of the good qualities of this tree, the other being the most important commercially. The bark contains a milky latex, known on the market as chicle, the chief ingredient in the enormous chewing gum industry.

I have read that no chicle has ever been produced outside of its native habitat, but who knows but that some day there might be a Sapidillo ranch in San Diego county.

And what can be more satisfying, more soul inspiring than to prepare the soil, plant the seed, watch the unfolding of the leaf and bud of these little unknown trees, whether it be for pleasure or profit.

Awards for 1934 Garden Contest

The Garden Contest Committee announces the results for the 1934 contest:

LARGE GARDENS

First Place—Mr. and Mrs. W. J. Ogden.

Third—Mr. and Mrs. F. T. Scripps.

Second—Dr. and Mrs. Von Buelow.

MEDIUM GARDENS

First Place—Mr. and Mrs. Perry Gavin.

Second—Mr. and Mrs. Julius Wangenheim.

Third—Mr. and Mrs. Michael Kew.

SMALL GARDENS

First Place—Misses Schwieder.

Second—Mr. and Mrs. C. S. Lory.

Third—Mr. and Mrs. C. Smith.

GARDENS OTHER THAN RESIDENCES

First—The U. S. Naval Training Station.

Second—The Park Manor Hotel.

Third—The U. S. Naval Hospital.

Medals were awarded to those taking first place in the first three groups and ribbons and certificates to all others.

The greatest number of gardens fell under the medium and small classes, hence competition was keener in these two groups and the judging difficult. An attempt was made to procure a proper balance among the judges of persons qualified to pass upon horticultural excellence and upon design. The gardens were judged both in April and in August and an average taken to determine their ratings.

There were many lovely features in all the gardens entered and the decisions on items for special mention was in many instances difficult. The Gavin and Heller lawns were found to be best. Col. F. M. Hinkle was given preference for the best hedge. The rose garden of Mr. and Mrs. W. J. Ogden was outstanding as was their simple tea house covered with a magnificent specimen of Passiflora princeps. The best annuals and perennials were found in the delightful garden of the Misses Schweider with special mention too for their cactus garden and their parking treatment. The manner in which the Original French Laundry had planted its parking or facade area deserves special mention. The Von Buelow and Wangenheim gardens must share mention for the best formal pool as must the Gavin and Lory for the best informal pool. The best lath house was Mr. and Mrs. C. T. Smith's. Miss Hortense Coulter had the best specimen tree, an Acacia pinata. The honors for the best treatment of walls go to Miss Coulter and to Mrs. W. Murray Smith for both have done beautiful things with their garden enclosures. Especially meritorious was the street side planting of Mrs. Michael Kew. Miss Leslie Gould has a very fine rockery and a miniature pool. The garden shelter of Hr. and Mrs. Julius Wangenheim deserves special mention for its beauty of design and its livable quality.

The committee wishes to thank those who so generously co-operated by entering their gardens in the contest in this effort of the San Diego Floral Society to make our city more garden conscious.

Drainage

By K. O. SESSIONS . . . *Physical Condition of Soil Important Factor*

San Diego's superior climate is made more attractive and enjoyable with the very great variety and beauty of the plant life here, and the horticultural questions regarding that development should be considered more generally and seriously.

Soil and location are two leading questions, but the real estate agents only present view and neighborhood surroundings as a rule—and the conditions for a successful garden will be found out later.

The importance of good drainage for plants is impressed upon me more plainly each year of my long experience in the nursery business here—and it is not generally considered by the public in considering the soil conditions.

Plants on sloping ground and particularly on filled in ground always flourish even though the sloping ground may not be particularly good—and for the filled in soil and location, no matter how poor, rough or even rocky the filling may be—results are extra good. The fact that the drainage is excellent beneath the plants and the roots can grow down and deep because of the outlet for surplus water. If the soil is shallow and drainage poor more fertilizer and water for the feeble plant does not make it grow better—but is really harmful.

Many of the beach resorts where the soil is all sand show an excellent plant development, with the addition of good soil and water in the hole where the plant is set, for the drainage is perfect.

Golden Gate Park in San Francisco was a tract of land practically all drifting sand dunes. A special grass that thrives in sand was planted to hold the shifting surface. Later, certain acacias and Monterey Cypress were planted in rows for wind breaks and shelter. Then a topping of good soil and soil used where plants were set was necessary, but the drainage was perfect and the roots could grow deep and be benefited by the moisture, and today, after about fifty years only, that park is counted among the few best parks of the world—under the wise management of Mr. John McLaren for over forty-five years.

If the soil is shallow with hardpan or even a heavy clay beneath that surface should be well broken up by digging out a large hole or blasting and digging out and mixing bean straw or coarse fertilizer and the imported peat moss to make the soil loose before the planting. Very generous should be the hole in depth with rocks at the bottom if a tree is to be planted. An outlet drain channel filled with rocks or a drain tile laid is excellent.

In places where the rainfall is heavy the laying of drain tiles is one of the first necessities and expenses in locating a garden, while in this very dry climate drain tiles are practically seldom used.

If the question of soil is considered before a house is begun, the expense of preparing the soil can be very largely reduced before construction begins. Contractors and architects seldom mention that subject—they may have the lot graded but the condition of the soil for the needs of the garden is not considered.

Begonia Research

By EVA KENWORTHY GRAY . . . *Origin of Many Unknown Varieties*

If one could have access to some of the old books written by the English botanists of which Sir William Jackson Hooker who was a member of the Kew Gardens in London, England, and who has written many books of horticulture, one would be able to find many of the old begonias and their ancestry. Although John Gould Veitch of Chelsea, England, was a begonia specialist and the variety Veitchii was named in his honor, it fell to Sir William to introduce many of the old originations and if one could have access to these old volumes many points could be cleared up as to their originations.

Then there is Condolle's two books "Geographic botanique raisonee" and "Origine des plantives cultives" which contain references to the begonias of Bolivia; the variety named by Condolle, Begonia Boliviensis.

From China we would find an author of horticultural works and from them would no doubt find begonia plants of that region, among which is the B. Evansiana so well known now throughout the begonia loving folks. Henry C. Andrews, an Englishman pursued these plants in his favorite haunts of China. But none of these rare books are likely to be found in this country and thus we grope as best we can to find out where so many of the old varieties came from and by whom introduced.

Take the B. Mrs. William S. Kimball, no record of this begonia is to be found and though I have hunted among many of the old growers none knew who was the originator, or for whom named, then one day looking over an old catalogue of W. A. Manda published about 1913 I found this listed as one of his introductions, but whether he grew it from seed or from import and further information as to its origination was not forthcoming, but he did cross this with a semperflorens and from this he had the B. Christmas Red, which is an all winter bloomer with a profusion of bright red flowers. Perhaps this was the forerunner of the one called Christmas Cheer and now in the market as a winter bloomer.

From Bailey's Encyclopedia we get many descriptions, but few of the originations. I believe that the Sunderbruckii he lists as a garden variety is a seedling from the Heracleicotyle, because when growing a plant from the Sunderbruckii seed I have one that harks back to this one. The growth and shape of leaf and its colorings are almost identical, and we know that inheritance of a plant will crop out even unto the third generation. Heracleicotyle differs somewhat from the Sunderbruckii in the leaf markings and the edges of the leaves are different. While Sunderbruckii has a broad yellowish band along the leaf veins and the edges are somewhat ruffled, the Heracleicotyle has only a narrow line down the veinings and the points are widely separated and almost entire.

I believe also that the other varieties known as Nine Point and Indian Ricinafolia belong to this same Heracleicotyle family which was introduced by Veitch in 1895. These plants were originally imported from Mexico and other crosses made from them. One needs to see and grow a plant to become familiar enough with it to know its individual points.

Of these recumbent begonias that have the creeping rhizomes are the Ricinafolia family of which begonia Ricinafolia Magnifica is the best known. With immense leaves shaped like the Ricinis, (caster bean) and tall spikes of airy pink flowers it is very popular among the begonia fans. This is listed in Bailey's as a cross between heracleifolia and peponifolia, but no record is available as to where peponifolia came from. This is where those old books would come in as to finding out where these old varieties of which we have no record, could be found.

Then there is Fischer's Ricinafolia, of which we have no record, but having some of the characteristics of the ricinafolia tribe is most likely a seedling grown by Fischer, whoever he is. Somebody page him please.

The B. Veitchii, spoken of before, is a native of Peru was introduced in 1867, described as "Loosely hairy, stems very short, thick and fleshy. Leaves orbiculate, cordate, lobed and incised, margins ciliate, green, veins radiating from a bright carmine spot near the center. One of the progenitors of the tuberous race."

From whence came the lovely little semperflorens Calla lily begonia? The question has been raised in the Begonia Club in the east and one member opined that it was of New England origin; the first time it came to my notice was in 1921 when a grower in Ohio told of a new begonia brought over by a lady from Europe—I think it was from Germany—and carried along with her to America a tiny plant in a pot (there was no plant quarantine then). This Mrs. Laird had a greenhouse in Ohio state and began at once to propagate this lovely plant. There was such a demand for it she said that as fast as she could root a plant it was sold and many of them were sent to the New England states where it seems to become acclimatized and made sturdy growth. Especially in Vermont, it was widely distributed among the wives of farmers who declared it was easy to grow. I obtained my first plant of it in 1924 from Vermont.

Dr. Wm. Bailey of New Hampshire, who is an enthusiastic begonia fan writes that in his rounds over the farming district he sees many fine specimens of the Calla lily begonia on porches and in an hour's drive has counted no less than 10. The farmers' wives who grow them set them outside during the summer months and take them in to their warm kitchen where in the windows they grow along in good shape. Using wood in their stoves they have no gas fumes to combat and no aphis to bother.

Also Rhode Island growers report they have little trouble in growing fine specimens of the Calla lily begonia and one man has been working for five years to develop a much stronger type of plant. He had one on exhibition at their local fair and though it did not have so much white on the leaves which seemed much heavier than the old variety. This

(Continued on Page 6)

The Tecomas

By K. O. SESSIONS

. . . *Resume of Varietal Characteristics*

Shrubs that are moderate in growth are not common, for most of our popular shrubs become very large and need constant pruning or replacement.

Tecoma Smithii has lately attracted my attention to its continuous bloom, drought resistant quality and moderate size. Its foliage is good, the flowers yellow, tinted with tubular and bourne in clusters, three to six inches in diameter, the shrub not too compact and normally about three to five feet in height. It does not seed, so it is propagated by cuttings. It is said to be a hybrid originating in a twelve-inch plant, blooms well and continues to flower as it grows. It is interesting to observe the Tecoma species that are in cultivation in San Diego. Tecoma capensis from South Africa is a large ever blooming shrub with an abundance of red flowers in small clusters and the foliage is a very rich dark green. This plant flourished even close to the seashore.

Tecoma Mackenii, a fast growing vine with large clusters of pink flowers, a free summer bloomer. Tecoma Queen of Sheba, a very similar vine in foliage and growth, but a darker pink blossom and a decided winter bloomer. Both vines need heavy pruning after their blooming season, for they are such very large growers.

Tecoma Jasminoides is a smaller growing vine, white flowers with a crimson spot in the center of each tubular blossom, and there is a pure white variety, alba, that is an excellent companion. These two vines are hardy in central California. Tecoma staus is a low growing shrub, *deciduous* in the winter, clear yellow flowers, attractive foliage, and seeds freely. It is a native at Cape St. Lucas, Lower California, and its wood is used for making the Mexican sugar crates.

In strong contrast is the Tecoma Mollis, variety Velutina, a tall growing shrub with larger yellow flowers in clusters and an ever bloomer in San Diego. It is a native of Guatemala and bears seed freely. This variety is not common as yet but deserves to be planted in every garden.

The two most conspicuous specimens in the city are in the gardens of Mr. Hermanse on Julian avenue and Mr. Geo. W. Marston, Seventh avenue. They are both slender shrubs, twelve feet tall. At the Old Town Park, four very bushy plants are full of bloom hanging over the walls and very conspicuous. Tecoma Australis is a strong growing vine useful for its handsome foliage, and the clusters of small cream colored flowers in the Spring. It stands a heavy pruning where necessary, growing out quickly as fine as ever before, a quality not often possessed by vines. It is propagated by cuttings, as it seldom bears seed.

BEGONIA RESEARCH

Continued from Page 5

one had pink flowers and he had one with white flowers.

This same man is also growing the Conchafolia, more commonly known as the spiral Feastii. This is also found quite common among the Vermont growers who call it "The Cork Screw begonia." The leaf of Conchafolia is same texture and color of the Feastii, but the basal lobe of the leaf is whorled. It is a native of Central America. It is hard to trace back some of the American originations of the imported varieties, but from what I can learn it seems that Feastii was originated by an amateur and that John Feast of Baltimore introduced it under the name of Feastii. It is furthermore reported that Bunchii is a sport of Feastii, this said amateur having found it among some cuttings and noting the difference in the leaves arrived at the conclusion it was a different species. Also it is noted that cuttings from Feastii produced the Bunchii which was originated by L. C. Bunch of Kansas.

Begonias seem to change names as well as location when they come to America, probably because when distributed in this country they do not tag them and one will give them a name to suit their fancy. So, we find the French Abel Carriere has been know to us here in this country as "Argentia" and also "Silver Leaf." It is believed that it is in some way related to the China species.

Then the latest question that has come up is where Compta originated.

WHY THERMOMETER READINGS VARY SO GREATLY IN SAN DIEGO

Dean Blake, Meteorologist.

Several times of late the Weather Bureau in San Diego has been asked why the official temperatures are almost invariably lower in summer and higher in winter than those recorded at homes scattered over the city. We have even been accused of falsifying our reports. As these differences are largely found in the residential areas, and particularly in those in the northeastern part of the city, the answer is simple; our thermometers are exposed nearer the water.

Time and time again, day temperatures in the districts away from the influence of the sea breeze are from 10 to 20 degrees higher than those recorded in the vicinity of the bay or ocean. On the other hand, they are considerably lower on cold nights in winter because the greater water vapor content of the air nearer the water prevents rapid radiation, and consequently the thermometer does not go as low as it does back from the coast where the air is drier.

Occasionally though, the land breeze temporarily conquers the ocean air, and frosts occur in winter, and high temperatures prevail in summer even to the water's edge. But this is not often.

In the fall months east and northeast winds, dry hot land breezes, frequently prevail on the hills surrounding the business district of the city, but in that part where our instruments are displayed, the cool, moist ocean breeze predominates. Atmospheric soundings at these times show a shallow, surface layer from the west, topped by a stronger, deeper current from the east.

Then, again, there is the matter of exposure. One can hardly expect the readings from a thermometer of questionable accuracy, placed haphazardly upon a porch or the wall of a building, to correspond with those from instruments properly ventilated, and free from radiated heat of nearby objects.

It properly may be remarked here, that all Weather Bureau records are carefully verified in Washington at the end of the month, and all recording instruments are carefully calibrated with a standard before they are issued.

Water Gardens

By BERTHA M. THOMAS

. . . *Annual Renovating Now in Order*

All gardens—water, earth, lath house, etc., must have one annual thorough renovating, and now is the accepted time for the water ones.

Fashions change even in this or perhaps we should say, we learn a better way. In the freezing climates we left the lilies in their containers, removed the water and then packed one or two feet of leaves over the top; the fish of course were moved to the house and a few would survive the winter in the close air and heat.

In spring we reversed the process. If the alternate freezing and thawing had cracked the cement of course there was another job of patching to be done. Then some wise head ventured leaving water, fish, and lilies all in the pool which was covered with boards, then a thick layer of leaves. Spring then meant only the top covering, no cracked walls, no dead fish, and all went merrily on to enjoy our few months of warm weather.

In California a pool is so little work, everything can stay just as nature meant it should, that is, just dormant under the water. But one must remove the muck from the bottom caused by all the decayed leaves, the lilies must be repotted. The cleaning is also a death notice to the summer crop of water bugs. One pool we cleaned a few days ago had two, about two inches long with most terrible beaks and claw feet, quite capable of holding large fish, and on several occasions we have found beautiful large Fantails with their sides ripped open. There is also one beetle which is a bad actor; but most of the water bugs are harmless.

By November 1st the hardy lilies have finished their season's labor; but the Tropicals go merrily on for about six weeks. The Blue Triumph, General Pershing, Panama Pacific, August Koch, Mrs. Wilson, Mrs. Whittaker, Marmaranta, Pamela, Amethyst, Independence, Red, Pink, Purple and Blue Stars, Lindberg, and a beautiful lavender seedling of our own which we have named San Diego, all are still blooming.

The Water Hawthorns are now nicely giving us their fragrant white flowers and will stay with us until warm weather again. They have a jealous disposition and refuse to do their exhibition stunt except during the winter months when the lillies have vacated the pool.

There are some very good reasons for cleaning your pool in late fall. One is that it is much warmer and more comfortable to do it now than later and it is almost imperative to have it all finished before the fish begin to spawn, which sometimes happen by February 1st. And if the lilies are replanted now they will start their root growth between now and spring and will bloom earlier.

The Tropical Lilies (growing from a bulb) should never be disturbed until the water is warm, probably late in March. They *may* stay with you if you venture transplanting in cold weather; but the chance is equal to that of the woman who was to get the husband she wanted if she drew the fish from the bag containing 99 eels and this one lonely fish and she had but one chance. When planting Tropical lillies next spring try giving them nearly twice the fertilizer the Hardy kinds will stand. They revel in it and double the size and number of their blossoms.

When building that new large pool which you have promised yourself give it *full* sun, not even a wall near the north side. Any wall or background interferes with the free air circulation which the pool requires.

And about that Algae, do not worry. The fish like it, the plants are indifferent. There are over 50 varieties of it but the slimy kind is the only one which seems to choke the life from stems and leaves of the plants. You may safely use one grain of Blue Stone to one cubic foot of water to clear the pool and neither plants nor fish will suffer. In warm weather you sometimes see a soft fleecy green cloud rising from the bottom as the sun warms up. At night it falls again. If left to grow while Dean Blake sends us warm weather it soon fills the pool. But this is not Algae, it is Uglena, a beautiful little fish-like looking animal under microscope, having one red spot like an eye. The body is transparent but the shell-like covering is green and because there is about three million in one drop of water, they can easily make a pool green. They multiply very fast; but die in cold water. Under ordinary conditions if Algae is growing in the pool it is a sign the water is chemically good for the fish. One San Diego man came to us several times and transplanted some from our pools to his; but it invariably died immediately, his fish were dying, plants not doing well, and we finally decided his pool had not enough circulation of air above it, caused by a high stone work directly north.

This spring in the early spawn of fish we noticed a Telescope with one normal eye while the other was a very large Telescope variety. Now the once small eye is as large as the other. We know the fish will grow new tails and fins, many animals grow new legs and tails and it makes one wonder if we could not correct some of our physical imperfections if we would discard much of our vaunted civilization.

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DEPTHS FOR BULBS

Things to Remember in Setting Out These Popular Plants.

By Helen W. King

I promised to give some information as to the planting depth for the bulbs most generally used in this section. While bulbous irises properly belong in this classification, I am going to include the fleshy-rooted kind as well, since they are being put into the ground at this time.

This type should be set at a slight angle and very shallowly planted. While the hot weather lasts keep the crown covered with soil, but when cooler weather comes, uncover this portion so the sun can reach it.

Bulb irises should be planted an inch and a half deep and six inches apart. Anemones take the same depth and the same spacing.

Freesias, ixias, crocus, watsonias, antholyza, babianas, tritonias, leucojum, scillas, muscari, sparaxis and galanthus all need to be set two inches deep and about two and a half inches apart.

Gladiolus should be planted, four, five or six inches deep, according to the size of the bulb and the character of the soil. In very light soil, the planting should be deeper than in very heavy earth.

Jonquils go in about four inches deep and six inches apart, while tulips ought to be set five and a half to six inches deep, and spaced five inches apart.

Hyacinths must be seven to eight inches underground if they are to grow properly and not come up prematurely. They should not be planted closer than seven inches apart.

Six to seven inches deep, according to the size of the bulb, is the rule for daffodils and other narcissi, the larger types, like King Alfred, being spaced ten or twelve inches apart. Polyanthus types and the smaller ones can be set more closely—say eight inches apart.

When it comes to the lilies there are variations in requirement. Madonna lillies need a comparatively shallow planting, three inches being sufficient. All the others, such as Henryi, Rubrum, Auratum, must be set a good twelve inches deep. All of these should be a foot apart, too.—Los Angeles Times.

A Choice Vine

By K. O. SESSIONS

. . . *Begonia distictis Rare and Beautiful*

Bignonia distictis is a very choice and rare vine, seen more generally in Santa Barbara than elsewhere in Southern California. It is sensitive to frosts so is not known generally farther north.

I have had one plant in my home garden for three years and last year it produced a smooth seed pod three inches by one inch, and now I have thrifty small plants available for the summer of 1935. It has been considered difficult of propagation and been grown by cuttings. The flowers are a dark purple changing through the shades of lavender to almost white. The color is not as choice a lavender as the Bignonia Violacae, but it is excellent and a freer bloomer.

A plant at Mr. Hugh Evans' garden at Santa Monica on October 1st, growing over a flat roof, was over six feet in diameter and completely covered with flowers.

The magazine, Golden Garden, of the Garden Club Federation of California for November, names it Distictis Cinera, also notes that it is sometimes listed as Pithecoctenium Cinerea. It is so plainly a bignonia that the use of that generic name is likely to be the more popular one.

Pithecoctenium means "m o n k e y comb" because the seed pod is generally covered with fine bristles one-half inch long and might be used by the monkeys where is grows in variety in Mexico. Fifty-four years ago I had a seed pod from Mexico six inches long and three inches wide covered with bristles and later I sent it to Mr. Peter Bissett in the U. S. Agricultural Department at Washington to be named and he asked to keep it for their seed collection.

A few years ago I had a similar pod only three inches by one inch from a vine at La Mesa and it bore white flowers.

Can anyone locate that plant now?

A FEATHERED CHORUS

There's a chorus every morning
Ere the sun peeps into sight
From a band of feathered songsters
Who've been waiting for the light.

Their merry notes come rippling
From the boughs of nearby trees
Floating in my open window
On the gently stirring breeze.

There's no need of time or rhythm
As their music is arranged
And they never stop to bother
Why, or how the key is changed.

Mr. Mocker seems to lead them
With a voice so full and rich
Stops and scolds a little sometimes
Thinks they're not quite up to pitch.

Now he sings a flute-like solo
While the others take a rest
There's no jealousy between them,
All agree his voice is best.

Once again they're all a-piping
Music seems to fill the air
Must have added to their number
Voices come from everywhere.

Now they grow enthusiastic
Each one does his very best
How they make their liquid music
You and I have never guessed.

Seems to me its more than music
As their voices now they raise
Seems more like a benediction
Lifted up in songs of praise

Then I ask in adoration
"Who doth gifts like these bestow?"
"Nature," says a friend in wisdom
"Nature, that is all we know."

If I press my question further,
Likely he will say I'm odd
Still its only half an answer
Nature's but another name for God.

J. C. Combe,
Carlsbad, California.

Thrips-Red Spiders-Fuchsias

By BERTHA M. THOMAS

. . . Hints on the Care of Fuchsias

Perhaps you rememer the old colored man who said, "If you ain't got religion you can't get it; if you is got it you can't lost it."

Fuchsias are like that. If they are healthy they will not get thrip and red spider. If they do get these diseases, they are at least hard to lose. One dose of medicine (spraying) will not do it, since the spray does not destroy the eggs which will hatch out about two weeks later. Even then there will probably be some leftovers.

To keep them healthy, give them food and drink regularly and plentifully and keep their feet properly cared for, which means a friable soil around and under, a small handful of blood and bone or cow fertilizer, or some nitrate or floranid once every two weeks. Alternate these if you like, as you do your own meals.

The drink they need constantly. They never should be allowed to get dry. As for their feet, after being properly planted, do not disturb them. The roots are shallow. On the east side, keep them mulched to protect their feet from the hot sun, or better still, put some medium growing plant in front for shade. This year we tried a row of the Fuchsia called Henry De Henkle, one of the Tryphylla type, and the coloring makes a beautiful setting for the many different colored one back of them and seems to harmonize with all. None on the east side had thrip or spider this summer but some on the north showed plain symptoms and I soon found their roots had not been getting sufficient water.

On the south we planted only Lycioides which some authorities say prefers hot sun. We cannot agree. They did not get the common animal enemies, but one planted in partial shade tells us plainly it is happier.

On the west we have plenty of shade, from the fact that a disgruntled neighbor put up a six foot, tight board fence just inside his line which is only a few feet from our house and it has been a blessing for our Fuchsias and Begonias.

So we have Fuchsias planted close to the house on all four sides, although, frankly, we will admit we wish all sides were north ones. But they are like your children, they can be trained in any desired way. Even the low growing bush kinds can be made to be almost a climber by pruning and staking.

If you wish one to give you blossoms all the year and abundantly, try the Aurora Borealis. One day we counted 304 blossoms on a plant five feet high. But there are now 200 varieties to pick from, and more new ones coming all the time.

One authority from the north told us not to plant the blues on the east as the sun would fade them. Well, of course, since seeing is the old fashioned way of believing, we tried it. One single and one double are now growing there and fade no more than those on the north.

There are now coming to their resting season. When fully dormant, prune heavily. The President of our Fuchsia Society at Berkeley tells me she hires an old English gardener to prune her 200 varieties and when the job is finished, they are like bare poles.

The half hard wood makes the best cuttings, taken in the dormant season. Or in the growing season take strong green tips, although we have better success at all times with the woody ones.

NAME SIX NEW MUMS

Six new distinctive varieties of chrysanthemums originated by hybridizers of the Bureau of Plant Industry of the Department of Agriculture have been recently named by F. D. Richey, Chief of the Bureau of Plant Industry, and B. Y. Morrison in charge of the Division of Plant Exploration and Introduction in that bureau.

A rosolane purple chrysanthemum seedling of the large-flowered Japanese type with petals showing a pale rosolane purple reverse was christened Beverly T. Galloway in honor of the first Chief of the Bureau of Plant Industry now retired. Dr. Galloway was chief of the bureau from its creation in 1901 until March, 1913, when he became Assistant Secretary of Agriculture. The variety, Beverly T. Galloway, resulted from the cross-pollination of the varieties Lady John Foster and Purple King.

A variety, Navajo, was derived from crossing the varieties Wee Dot and Lynn Dowell. Navajo has a button type flower with well-marked center and zinc orange petals shading to pale lemon yellow. In the richness of its warm color this flower is readily associated with the southwestern American Indians of the same name.

Antares is one of the new varieties which is the result of crossing the chrysanthemums Catherine Moore and Nettie Mullican. It has a semi-double flower, measuring three inches, which in color is cinnamon-rufous, shading to apricot orange at the center. This variety with its deep yellow center from which radiate petals of a reddish cast has been appropriately named for the star Antares, which is the brightest of the constellation Scorpio and the reddest of all the conspicuous stars in the sky.

The new variety Aldebaran was named for the red giant star which is the brightest of the constellation Taurus. The flower, which measures 2½ inches, is semi-double with oxblood red petals, maize yellow near the deep yellow center. The variety was developed by crossing the varieties Lynn Dowell and Kabatama.

Pleiades is the name given a variety resulting from cross-pollinating the varieties Wee Dot and Mrs. John G. Slater. The plant is characterized by a compact growth with a multitude of small white pompon flowers which call to mind the cluster of stars of the constellation Taurus, for which the variety is named.

The new variety Marie Brillant is as brilliant in coloring as its French name indicates. The flower, which measures 3¾ inches, is a semi-double with lemon yellow petals edged with Pompeian red. It was obtained by cross-pollinating the varieties Grace Waring and Meta J. Bergen.

WHY THUNDERSTORMS RARELY OCCUR IN SAN DIEGO

Dean Blake, Weather Bureau

There are two types of thunderstorms. One, the product of local instability, is known as heat thunderstorms; the other, associated with the wind shift or squall line, is known as cyclonic thunderstorms. The first type occurs mostly in summer, whereever warm, moist surface conditions result in an unstable atmosphere. They form when calm, humid air near the ground becomes hotter than surrounding air, and, rising, cools to its dew point with the resultant cloud formations. As long as this process continues, the clouds build higher and higher, and if continued, precipitation begins.

Cyclonic thunderstorms are the result of warm, moist air being lifted enmasse by an undercutting wedge of cold air. When this takes place, turbulence, instability and condensation results. Most of our thunderstorms are cyclonic in origin, and occur with our rains in winter.

In a word, thunderstorms are the result of a mass of warm, humid air being forced upward, where it finds itself surrounded by air of lower temperature. In summer, the temperature inversion along our coast, with a warm, abnormally dry canopy of air consistently overlaying a stratum of relatively cold, damp, air, prevents overturning and insures a stable atmosphere, and few thunderstors occur. In winter, few storms or cyclones reach San Diego, and the distance from the center is great, and we are out of the thunderstorm area.

Lightning and thunder are the product, not the cause of thunderstorms. Lightning, according to the latest theory, is the result of the difference in the size of the raindrops, the larger, heavier drops in the front of the storm cloud being charged with positive electricity, and the smaller raindrops found elsewhere in the cloud, or in other clouds, being charged negatively. The earth is thought to be positively charged at such times. When the difference in potential becomes too great a discharge takes place. Thunder is merely the reverberations and echoes from the waves of compression set up by heat expanding the air along the path of the discharge.

Garden Problems . . .

By R. R. McLEAN

. . . *Timely Advice on Current Garden Problems*

Question: I am sending you a sample of a rather bad weed in my lawn. It is rapidly taking the lawn. Can you suggest any remedy?—K. L.

Answer: The sample sent proved to be mouse-eared chickweed, a common pest of lawns. One of two materials, iron sulphate or ammonium sulphate, or a combination of both, can be used to control this pest as well as others of a similar growth-habit, dandelions and plantains, for example. One pound of iron sulphate crystals (copperas) is dissolved in one and one-half gallons of water and sprinkled over the infested area, this amount covering about 100 square feet. The crystals may be somewhat difficult to dissolve but if covered with boiling water will melt readily. The amount of water can be varied more or less as some formulas call for as little as one pound to four gallons of water.

If ammonium sulphate is to be used, wet the lawn down and then sprinkle a small amount of the dry chemical on the chickweed patches and let stand for a day. Then follow with a thorough irrigation to wash the chemical down into the soil. The grass may be burned to some extent but the damage will be only temporary.

A combination of the two chemicals is applied as follows: dissolve one-half pound of iron sulphate crystals in nine ounces of water at boiling temperature. Stir this solution while hot into nine pounds of finely sifted sand. Use an earthen or wooden vessel and with a wooden paddle stir quickly. A few days in the sun, stirring occasionally will dry the mixture sufficiently. Then add a pound or two of sulphate of ammonia salts, mixing well, and use dry at the rate of 4 or 5 ounces to the square yard. Any or all of the treatments indicated above may have to be repeated a few times to kill out heavily infested chickweed patches in lawns.

Question: Rusty spots appear on the undersides of the leaves of several rose bushes. These leaves turn yellow and drop. Please let me know what to do about this trouble.—Mrs. M. R.

Answer: Some varieties of roses are more subject to orange rust than are others. Control is rather difficult beginning in the winter with pruning. All prunings and fallen leaves should be collected and burned or buried and the plants given a thorough spraying with strong lime-sulphur. During the spring and summer the bushes can be dusted with dry sulphur occasionally or sprayed with liver of sulphur (potassium sulphide) if rust appears. These materials, with the possible exception of liver of sulphur, will more or less discolor the foliage and should be avoided if possible. Heavy applications of barnyard manure during the fall or winter and proper irrigation as necessary will produce a good growth of deep-green, thrifty foliage in the spring and summer that is much less subject to rust than the leaves would be if these operations were omitted. A spindling, weak growth is less able to resist rust than a healthy vigorous plant. If you find one or more plants that seem to be particularly susceptible to rust, it probably would pay to remove them and substitute others that are more resistant.

Question: I have had much trouble with the roots of various flowers in two beds. Think there must be some disease in the soil. How can I sterilize it and with what material? Please give directions.—A. S. B.

Answer: Carbon bisulphide and formaldehyde are two good sterilizers. Carbon bisulphide is a little more expensive, but after using it the ground can be used sooner than if formaldehyde were applied. To use the carbon, inject about two ounces to every square foot, making the injection two or three inches deep and covering up with earth. Formaldehyde is applied in a 1¼ percent solution, that is, 1¼ pints of formaldehyde should be diluted with 98¾ pints (about 12½ gallons). One gallon of the diluted material is sufficient to sterilize one cubic foot of soil. Neither carbon bisulphide nor formaldehyde should be used within several feet of plants whose roots

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Stray Thoughts . . .

By PETER D. BARNHART

. . . *Little Known Shrubs Worth Growing*

There are a few flowering shrubs which seem to be little known to the Clan of Gardeners in this Southland; at least I seldom see them in any gardens that come under my observation. One of them is very spectacular when in bloom, and that is most of the year. Calliandra grandiflora is its name. The generic name is from the Greek, which in English, means beautiful stamens. The flowers are without petals; the stamens, a brilliant scarlet, in clusters, and when the evergreen shrub is in full bloom it is gorgeous. It is a shy seeder; even so, the seed germinate readily. The little plants are slow growers, and tax the patience of those people who must have immediate effect when planting a Shrubbery. Perhaps cuttings would be a quicker way of getting large plants. This is a thought for propagators to try their hand at the game. Another evergreen shrub, Carissa Grandiflora, is a spiny subject, the spines, each in two sharp points, makes it a desirable hedge plant. Indeed in South Africa it is used for that purpose. The fruit is dark red, varying in size from that of a pea to that of a walnut. Furthermore, if grown from seed, not all the plants are fruitful, even though they may produce flowers. When a type is found that bears large fruits, it *must* be perpetuated by rooting cuttings, a work well worth the time and labor in such an endeavor.

The flowers are pure white. A member of the Apocynaceae tribe of plants, the sap is milky, so also is the juice of the fruit. Here is a subject worthy the attention of the Economic Horticulturist. It is one of that class of plants which *must* have an abundance of water the entire year to do its best as an ornamental, or economic subject. The fruit is acid, and when cooked is equal to cranberry sauce. Why it has not been extensively grown in this Southland is one of the mysteries of the profession. The possibilities of this section of the heritage of men, is not yet known, indeed not yet dreamed of, for producing fruits, and flowers for their pleasure, and profit.

Fatsia papyrifera is a marvel for tropical effect in the art of landscape adornment. It is a gross feeder, and a hard drinker, the roots spreading out ten to fifteen feet from the base of the plant. The one I have in mind as I write is fifteen feet high, with a spread of top of about the same dimension. It has five crowns, each one producing seven spikes of flowers, each spike four feet long, bearing innumerable small white flowers, forming a huge bouquet ten feet in diameter and six feet high. It blooms during the so-called rainy season of Southern California. Whether rain comes or not, the plan may be developed to the gigantic size here mentioned, with water from the hose.

The common name of this plant is: Rice Paper Plant, the pith furnishes the material for the so-called rice paper.

"The plant produces the beautiful substance, known as rice paper; the stem—four inches diameter—is full of white pith, like the elder; in a full grown specimen the pith is about an inch in diameter. It is divided into pieces three inches long, and by the aid of a sharp instrument is unrolled, forming the thin, narrow sheets known as rice-paper greatly used by the Chinese for drawing figures of plants and animals, and also for making artificial flowers."

I have a good picture of the plant I write about, which cost me $1.50. If you care to use it as an illustration I shall be pleased to loan it to you.

A MONUMENT OF TREES

Washington State's Federation of Women's Clubs is building for itself a monument that will charm generations to come through its active and successful campaign that was started six years ago to preserve stretches of majestic stands of Douglas fir along the Sunset Highway on Snoqualmie Pass. More than sixty-two acres of this beautiful, virgin timber land has been purchased at a cost of $25,000 by the federation and has been presented to the State; and as a result of this thoughtful gesture, the State Parks Board now is negotiating for the similar preservation of still more of the stately forests bounding public highways in the Cascade Mountains.

It is a notable piece of work that has thus been accomplished. Thousands will continue to be thrilled and awed by the silent grandeur of these beautiful forest lanes that attract tourist traffic to Washington—lanes otherwise destined to become cold ribbons of highway bounded by ugly areas of stumps and brush that remain in the wake of the commercial woodman's ax, crosscut saw and groaning donkey engine.

This forest preservation program is an entirely unselfish one; is not like a shining monument in a public square, flaunting an inscription eulogizing the meritorious services of man or institution; it is a quiet parcel of grandeur preserved for posterity, and possibly not one in a thousand persons who will enjoy its magnificence of nature will know that it was preserved for his enjoyment by the benevolent motives of a human agency.

CHRISTIAN SCIENCE MONITOR.

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Garden Problems . . .

(Continued from Page 10)

may possibly be in the zone treated.

Question: I have a low wall and fence I want to cover with some flowering vine preferably an evergreen. Will you kindly make some suggestion, stating color of flowers and whether or not the vines are hardy in a location where we have a little frost once in a while.—Mrs. B. V.

Answer: There are a number of good climbers some brilliantly flowered and others inconspicuously so, some with relatively fine and close foliage, others with large, coarse and somewhat sparse foliage. Representatives of the vines with showy flowers are the bougainvillia, B. spectabilis, crimson lake variety; passion flower, Passiflora sps.; trailing lantanas, Lantana sellowiana; and cup of gold, Solandra guttata. The evergreen or cape grape, Cissus capensis, has grape-like foliage inconspicuous flowers followed by fairly good-sized, decorative bunches of grapes. Several of the Bignonias or trumpet flowers have brilliant flowers, but the foliage of some is quite straggling. You also have a choice of several jasmines with yellow or white Lonicera sps., are available, as are also the Tecomas, Pandorea sps. The scarlet passion flower, Tacsonia manicata, is particularly striking. Among the smaller leaved vines of particular merit are the Australian pea, Dolichos ligmosus, and the Australian blue-bell, Sollya heterophylla. The Hardenbergia or coral pea has small pea-shaped foliage with a color range in different varieties of violet-olive to light purple, pink and white. Your nurseryman undoubtedly can name others and perhaps show you some of those named above in blossom.

Question: There seems to be quite a lot of scale on a Eugenia tree. Some of the leaves are grayish underneath and dry. Will you please tell me the remedy.—Mrs. S.

Answer: The scale on Eugenias is usually a small brown one, rather high in the back, known as the hemispherical scale. It is quite commonly found on ferns, also. The remedy is fumigation or oil sprays. The former is hardly practicable, however, for small yard trees (except citrus) or bushes, so spraying with oils is recommended. You can secure an oil emulsion, all seed houses and nurseries carry several brands, and use 1 pint of emulsion to 50 pints (6¼ gallons) of water. You should apply the spray twice at least, the second some three or four weeks after the first. The grayish condition of the leaves is probably due to thrips, an insect very apt to attack that plant. If a little tobacco extract is added to the oil emulsion, a teaspoonful of black leaf 40 to the gallon of completed spray, thrips will be controlled also.

Question: I have some gladiolus bulbs that I want to store for two or three months. Last year I had so much trouble with small insects on my plants, I think it was a thrip, that I want to prevent the trouble another year. Please tell me how to fumigate the bulbs and prevent the damage.—Mrs. L. H. F.

Answer: Gladiolus thrips injury has increased very rapidly during the past year. Practically every section of the county where glads are grown is now infested. Methods of prevention and control include treating the corms while in storage, raking up and burning all refuse, including old tops, and the destruction of host plants nearby. For small lots of corms the simplest method of treatment is to place them in tight paper bags and scatter over them naphthalene flakes. Use about one ounce of naphthalene to each 100 medium-sized corms. The tops of the bags should be folded over to prevent the fumes from escaping. About three weeks' exposure at 60 degrees F. will kill all stages of the insect that may be present on the corms. Do not use a tight metal container as the corms may heat. If necessary to plant sooner than the three weeks, a substitute treatment can be given such as dipping the bulbs in a solution of semesan for seven hours, using one and one-half pounds to 10 gallons of water.

A circular giving full information concerning the gladiolus thrips, including methods of control, list of host plants, etc., will be sent to anyone applying for it at the County Agricultural Commissioner's office in the Court House.

ITEMS OF INTEREST

In the November issue of the Desert Magazine I noted a few lines which said: "It is a shock to hear that Miss Sessions' succulent garden, mostly aloes and agaves, is to be moved to make a parking place." This surely must be an error as Mrs. Mary A. Greer, president of the Floral Association, only recently informed me that Mr. J. G. Morley, Superintendent of Parks, had donated the adjacent land on the opposite side of the canyon road to be used for the additional planting of more aloes, agaves and plants of similar nature.

Mrs. McCabe has promised about thirty large, attractive Hesperoyucca Whipplei to be planted in this plot as soon as the ground is in condition to receive them. During the month of October Mrs. McCabe made another generous donation which consists of: 1 Agave applanta, 1 Agave hua humansis, 1 Agave lophantha var caerulescens, 1 Agave noli-tangere, 1 Agave marmorata, 2 Agave deserti, 3 Agave purpurescens, 12 Aloe stricta seedlings, 12 Aloe seedlings, beside several other aloes and agaves not known by name.

Miss K. O. Sessions also gave another liberal offering: 1 Furcraca, 1 Agave Brevispine, 3 Agave Victoria Reginae, 1 Aloe Bainsii, 2 Aloe Virens, 1 Aloe from government, no name; 2 Aloe cuttings from U. S., no name; 4 Aloe seedlings.

Another important announcement to students and those desirous of further plant knowledge is in the offer of Mr. Fred Bode (foreman Exposition planting) to have made neat, suitable wooden labels, painted green with white lettering, giving name of plant and native habitat. This has been a long felt want by the Floral Association, but then—"All things come to those who wait."

C. I. JERABEK.

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